Infection versus Tumors.

Adami has called attention to a certain parallelism which exists between the behavior of infections and that of tumors. In infections there is usually a single focus, and when multiple foci exist these most commonly occur simultaneously. From this he concludes that the products of the original focus have aroused the protective agency of the body to produce antibodies and thus limit the spread of the infection. It may be also in cancer that the products of the new growth produce a reaction in the tissue of the host, which, though not sufficient to inhibit the original growth, are yet sufficient to prevent a further extension in the body. Gaylord has shown that in a certain number of mice, where the inoculation of tumors has been successful, these tumors will subsequently disappear. If now it be attempted to reinoculate them with the same or similar forms of growth, the result is negative. Sticker also observed that he could inoculate a tumor successfully in one area of the mouse, but could not reinoculate it in another portion of the anatomy at the same time; also, that if the inoculations were made in two different places at the same time, both would take, but if it were attempted to inoculate them at different periods of time the result would be negative. Bibliography.

Bibliography.

Wooley, Paul G.—Boston Medical and Surgical Journal, vol. 148, 1903. Notes on Primary Multiple Tumors. Harbitz—Journal A. M. A., March, 1916. Adami, J. G.—Concerning the Causation of Cancerous and Other New Growths. Yale Medical Journal, 1907. VII, page 309.

Wells—Journal of Path. and Bacteria, 1901, page 351. Bartlett—Arch. of Int. Med., XIII, p. 624. Multiple Malig. Prim. Tumors.

Warthin—Archiv. of Pediatrics, 1901, page 812. Slye—Journal Medical Research, 1915, pp. 33, 147.

BORDERLINE TYPES OF SEBORRHOEIC DERMATITIS AND PSORIASIS.*

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The study of borderline types is of very great importance to Dermatology for the specific reason that dermatological classification is still resting on shifting, unstable and manifold bases. None of the fundamental factors taken as a basis of various systems of dermatological classifications can consistently and definitely divide the recorded nosological material into distinct and sharply defined groups without overlapping, conflicting and leaving a surplus of nondescript and undefined clinical forms.

Pathology, etiology, morphology, anatomic structure and clinical symptomology—all of these factors have been found insufficient to be taken individually as a sole guiding principle of classification. The most shifting and variable among these factors is morphology, on which essentially the entire clinical symptomology and differentiation of the bulk of individual dermatoses is built, even though, as groups, they are divided on pathological differences. For this reason the study of borderline dermatoses assumes more than a casuistical interest; it is

more than a mere refinement of differential diag-The study of borderline dermatoses can nosis. and should be utilized for a broader and more important purpose of bringing out new viewpoints and facts of their clinical and pathological relationship, thus preparing new bases for a rational and comprehensive classification.

Among various borderline dermatological types those between psoriasis and seborrhoeic dermatitis are of considerable practical and theoretical interest.

It has been the writer's privilege to see for the last two years several of these cases. The borderline features of the cases were so marked as to make a differential diagnosis well nigh impossible and to prompt their record.

CASE REPORTS.

Case 1. Mrs. B., æ. 36, came with a generalized eruption of several years' duration. The scalp was covered with a fairly dry but heavy diffuse crusting extending way below the hairline. Large typical patches of seborrhoeic dermatitis between the breasts. On the back and limbs a number of patches from a dime to a dollar sized, of frankly psoriatic type; there are also patches with heavy yellow scales suggestive of seborrhoeic dermatitis. Knees and elbows are free from eruption. The patient gives a history of a chronic course with many relapses.

Case 2. A young girl æ. 16, came with dry, scaly typical psoriatic patches on both elbows; there were also dry, crusting large areas on the scalp. The case was diagnosed as psoriasis. Great was our surprise when a week later the patient came with as a typical acute outbreak of seborrhoeic dermatitis, as one may meet. A number of round and circinate patches on the face and neck were clearly the outgrowth of the main seborrhoeic area on the scalp spreading downward over the hairline in all directions. Psoriatic patches on the elbows looked as before. Several patches on the back presented the combined features of both conditions.

Case 3. Mrs. M., æ. 25, shortly after confinement came with an acute breaking out of the whole scalp, face and neck. The examination reveals a classical picture of a hyperacute seborrhoeic dermatitis. The trunk of the body and the limbs show several scattered patches presenting a mixed picture of psoriasis and seborrhoeic dermatitis. The knees and the elbows on the extensor surface show dry patches which are nearer to the pure type of psoriasis than any other patches. The patient states that these patches are of many years' duration with many recurrences. The patient's two brothers are affected with psoriasis.

Case 4. Mr. S., æ. 45, paralyzed and bedridden for the last 13 years. The advice was sought for, what was deemed, bed sores which developed gradually during the last few months. The examination has revealed several large, from a dollar to a hand palm sized, psoriatiform patches on both buttocks and extending further down in the genitocrural region, where it was associated with an erythema intertrigo due to the soiling by urine and feces. Some dry scaling on a reddened base was also present on the scalp and bearded region of the face. Elbows and knees showed small psoriatic patches. The patches on the buttocks showed a decidedly yellow tinge and rather heavy plate-like

^{*}Read before the Forty-eighth Annual Meeting of the ledical Society, State of California, Santa Barbara, Medical So. April, 1919.

scaling. Shortly after I was called in again on the patient's complaint of itching of the scalp and the ears. Great was my surprise to see a diffuse and rather heavy seborrhoet of the scalp and typical patches of seborrhoeic dermatitis of a subacute type, located symmetrically, both on the inner and the outer surface of each ear. The patches inside of the ears resembled somewhat lupus erythematosus. The patches on the outer surface of the ears, extending over the fold between the concha and the temporal region, had both seborrhoeic and eczematous aspect and could hardly be differentiated between these two conditions.

INTERPRETATION OF THE CASES.

Each one of these cases could be taken at one time for psoriasis, at another for seborrhoeic dermatitis, according to the predominating type of eruption at certain periods, but at all times there could be found patches presenting the combined features of both conditions.

The interpretation of these cases can be attempted along three different lines.

1st. It may be a case of a single pathological and clinical entity, either psoriasis or seborrhoeic dermatitis, with morphological variations so marked as to simulate the clinical appearance of each other.

2d. It may be a case of pathological transmutation, where true psoriasis develops from the lesions of seborrhoic dermatitis, and vice versa.

3d. It may be a case of the coexistence of both conditions with mutual encroachment and overlapping of lesions.

These three possibilities represent the dualistic viewpoint holding that psoriasis and seborrhoeic dermatitis, pathologically and clinically, are two distinct entities. It is fair to state, however, that there is a view represented by Norman Walker of England, that psoriasis and seborrhoeic dermatitis are but two clinical varieties of the same condition, pathologically indistinguishable.

REVIEW OF THE LITERATURE.

A detailed analysis of these hypothetical interpretations can be properly preceded by a brief review of the literature on the subject. It is surprising how little attention is given in the receent literature to this group of cases. This fact might lead one into a belief that this matter is a definitely settled and closed chapter in dermatology. The perusal of the older literature, however, reveals a considerable confusion and diversity of views, both as to psoriasis and seborrhoeic dermatitis, and as to their clinical relationships. This can be well illustrated by the following quotations in the discussion of the pathogenesis of psoriasis:

Sutton¹ in his treatise on skin diseases states: "At this time the majority of investigators believe that psoriasis is caused by a parasite."

Says Pusey² in his textbook: "The majority of authorities regard parasitic nature of psoriasis improbable."

The majority of dermatologists regard psoriasis and seborrhoeic dermatitis as distinct clinical entities. Many of them have recognized the borderline types, but they have given to them only scant attention and have made hardly any attempts at the interpretation of these forms.

Stellwagon ³ briefly remarks that exceptionally the scales in psoriasis are greasy and filmy on touch and present some features of both diseases.

Crocker also observes that seborrhoea psoriasiform—i. e., psoriasiform seborrhoide—is one of the least common forms. He suggests that the presence of seborrhoea offers a suitable soil for the growth of other bacteria.

Sequeira advances another hypothesis that psoriasis may be altered by seborrhoeic condition.

The broadest view of all is advanced by Sabouraud, the discoverer of Bac. Seborrhoicus. He includes under the terms of seborrhoids also the scurfy streptococci lesion, pityriasis rosea, psoriasis, parapsoriasis, etc. At the same time he draws clearly a hystopathological difference between psoriasis and sebor. dermatitis, calling our attention to the phenomena of exocytosis, i. e., minute cellular infiltration in psoriasis, in contradistinction to exoserosis, i. e., exudation of serum to be found in eczema and seborrhea.

Unna, who the first has described and defined seborrh. dermatitis, as a clinical unit, takes also a rather unique and broad view, emphasizing the pathogenetic importance of coil glands in seborrhoea, and grouping seborrhoeic dermatitis entirely with eczemas. However, Unna does not regard psoriasis and seborrh. dermatitis as different clinical types of the same pathological condition. Far from it, Unna emphatically states that differentiation between these two conditions is of great importance. He emphasizes the fact that in seborrhoea the fatty matter is not situated in the scales alone, but it penetrates the whole thickness of the skin, as in no other disease.

Robinson also emphasizes a hystopathological difference between these two conditions, stating that psoriasis is essentially a hyperplasia of the malpygian layer, and that sebaceous and sweat glands are not at any time involved in psoriasis. These results have been also confirmed by Jamison and Tilbury Fox. Norman Walker of England represents a small minority, who believe in the closest pathogenetic relationship if not a perfect identity of psoriasis and seborrh. dermatitis. In fact, he regards them practically the same and deems it unnecessary to draw any distinctions.

So extreme a view seems perfectly unwarranted neither by the hystopathological changes agreed upon by the majority of investigators and particularly well emphasized by Unna and Sabouraud, nor by the clinical observations. The clinical behavior of psoriasis and seborrh, dermatitis seem so totally different as to refute their pathogenetic identity even in a more emphatic manner than the hystopathological differences. The writer sides decidedly with those clinicians who consider psoriasis and seborrh. dermatitis as distinct and independent clinical entities. The constant and uniform start of seborrh. dermatitis from the scalp and its downward spread by continuity or self-inoculation, the circinate border, its tendency to invade axillar and inguinal regions-favorite locations for parasitic dermatoses—the rapid response of seborrhoeic lesions to antiparasitic local applications, such as sulphur, mercurials, salicylic acid, etc., definite selflimiting clinical course of seborrhoea reaching the

stage of involution with the destruction of the hair follicle and the onset of alopecia, the relative absence of hereditary and family traits, and the possibility to trace up the contagium through combs, hat bands, etc.—all these facts point unmistakably to the parasitic nature of seborrhea.

On the other hand, the onset and the character of development of psoriasis, its simultaneous start of multiple patches in widely scattered parts of the body, the discrete character of the patches without the slightest tendency to run together or to creep in one direction by the extension of the advancing edge, as all parasitic forms do, a strong tendency to hereditary and family traits, a perfectly indefinite and capricious course, a possibility of rapid and spontaneous involution (a phenomenon never observed in seborrhoea), a possibility of clearing up from a constitutional, arsenical or dieting treatment alone, or after the removal of a source of local infection, and, finally, the lack of positive or even plausible bacteriological evidence—all this with equal force points to the metabolic, constitutional or toxic nature of psoriasis.

THE INTERPRETATION OF BORDERLINE TYPES.

The writer's interpretation of the reported and similar cases is based on his belief that psoriasis is a constitutional, non-parasitic, and that seborrh. dermatitis is a local and parasitic dermatosis.

From this viewpoint the above offered hypotheses for the interpretation of the reported cases can be readily and definitely answered.

The first possibility of the cases being one or the other clinical entity with unusually marked morphological variations is refuted by the fact that each one of the reported cases presented at all times a clinical picture of double condition, each of dermatoses retaining its characteristic location, its mode of distribution and clinical course, only at times showing the predominance of one over another.

The second possibility of pathological transmutation, i. e., the developing of true psoriasis from the patches of seborrh. dermatitis, as suggested by some (quoted by Cunningham 7), besides its speculative character, does not agree with the observation that it is the psoriatic patches in typical psoriatic location which show the mixture of seborrhoeic features, and not the seborrhoeic lesions that take on psoriatic aspect.

The writer is inclined to accept the third hypothesis, that of the coexistence of both conditions with a mutual overlapping and encroachment of lesions. This overlapping and encroachment, however, is mutual only apparently, and particularly so on the scalp. On the rest of the body the clinical evidence readily points to the fact that it is the seborrhoea engrafts on the psoriatic patches, and not the psoriasis on seborrhea. This conception seems perfectly plausible, as the seborrhoeic contagium is very mobile and may rapidly spread under favorable conditions over a large surface of the body. This contention seems to be also substantiated by a therapeutic observation that seborrhoeic lesions, as a rule, clear up first, leaving the underlying psoriatic patches in their original condition, in which they stay until the next flare-up and superimposition of seborrhoeic contagium. The incidence of, active or

latent seborrhoea, in psoriasis is not recorded, but it is likely to be rather common, as the inflamed and infiltrated patches of psoriasis present a favorable soil for seborrhoeic contagium.

Summary.

This interpretation of borderline types of psoriasis and seborrhoeic dermatitis is offered not only as a key to the therapeusis of these cases, but also as an attempt to clarify the confusion and indefiniteness in regard to this important group of cases.

In conclusion the writer wishes to emphasize the following points:

1st. The study of borderline dermatoses is of great importance from nosological and therapeutic viewpoints.

2d. Psoriasis and seborrhoeic dermatitis are distinct clinical and pathological entities.

3d. Psoriasis is a constitutional, metabolic, nonparasitic dermatosis. Seborrhoeic dermatitis is a local parasitic dermatosis of follicular origin.

4th. Borderline types of psoriasis and seborrhoeic dermatitis are due to the engrafting of seborrhoeic contagium on psoriatic patches.

Brockman Building. References:

- References.

 Sutton: Diseases of Skin. 1916.
 Pusey: Principles of Dermatology. 1911.
 Stellwagon: Diseases of Skin. 1910.
 Crocker: Diseases of Skin. 1903.
 Sabouraud: Topographical Dermatology. 1912.
 Hyde: Diseases of Skin. 1909.
 Cunningham: Medical Record. 1917.

SEPTIC LEPTO-MENINGITIS OF OTITIC ORIGIN. REPORT OF A CASE WITH RECOVERY.*

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It is not only very commonly the popular belief that meningitis is always fatal, but even among the medical profession the impression prevails to an unfortunately great extent that meningitis, except in the epidemic form, is unvariably lethal. To such the term meningitis implies a condition largely as is seen in the ultimate stage of the disease on the autopsy table. At such time the whole cerebro-spinal system is bathed in creamy pus, or the more fibrous exudate smears the surface, involving the various nerves and altogether presenting a hopeless picture. This certainly is a fatal condition and surgery has yet to bring its basic principle of drainage to bear for its relief. The above mentioned individual, under criticism in order to emphasize the modern viewpoint, however has a class of distempers that includes the rather vague conditions known as meningismus and serous meningitis. These conditions he holds to be curable and distinguishes them from a true meningitis largely because of that fact. Now it is well established that these different conditions represent the various stages of the same disease. I am speaking particularly of the meningitis that depends for its source of infection upon some septic focus in the ear, accessory sinus, skull fracture of other neighboring part. Still I think the principle is applicable to all forms whether from typhoid, pneumonia or what not.

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